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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,245

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Chiyo Kusubayashi

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EXAMINER

KAPLAN, HAL IRA

ART UNIT

PAPER NUMBER

2836

NOTIFICATION DATE

DELIVERY MODE

04/08/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No. 10/541,245	Applicant(s) KUSUBAYASHI, CHIYO	
	Examiner Hal I. Kaplan	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-22 are objected to because of the following informalities: Claims 10, 12, 14, 16, 18, 20, and 22, "a fourth type of ac power" lacks proper antecedent basis because the claims do not recite first, second, and third types of ac power. Claim 17, lines 4-5, "for protecting the electric power inverter against the first type of dc power" should be "for protecting against surges in the dc power supplied through the overhead wire". Claim 21, lines 3-5, "for protecting ... the inverter internally against the first type of dc power" should be "for protecting ... the inverter internally against surges in the dc power supplied through the overhead wire".

Claim 1 recites an inverter which converts a first type of dc power to a second type of dc power. This is not the proper function of an inverter. An inverter converts dc power to ac power.

Claims 1-22 recite first, second, third, and fourth "types of" ac and dc power. It is unclear what is meant by a "type of" power. For examination purposes, it has been assumed that a "type of" power is the power provided from a specific power source.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 9-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the US patent of Nomura (6,388,904) in view of the US patent of Tanaka (5,703,415).

As to claims 9 and 15, Nomura discloses a vehicle power supplying system (see Figure 1). An electric power inverter (21,58) converts a first type of dc power received through an overhead wire (1) to a second type of DC power (at output of rectifier 68), and supplying the second type of dc power to a dc load (inverter 9); an electric power supplier (22,59,32,69) for converting the first type of dc power (power supplied from overhead wire 1) to a third type of dc power; and a controller (46) for receiving power from the inverter and supplier, and controlling the inverter (21,58) (see column 2, lines 56-67; column 3, lines 4-9, 15-19, 36-42, and 51-59; and Figure 1). Nomura does not disclose the claimed power-outputting unit.

Tanaka discloses a power-outputting unit (20,21) comprising a butt-jointed diode composed of a first diode (20) and a second diode (21) arranged in a "butt-jointed" configuration for outputting the higher of two types of input dc power (see column 1, lines 19-34 and Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have used a power-outputting unit comprising butt-jointed

diode at the converging point of the parallel inverter paths of Nomura, in order to prevent backflow of power into the inverters.

As to claims 10, 12, 14, 16, 18, 20, and 22, the electric power inverter (21,58) of Nomura also converts (via inverter 9) the first type of DC power into AC power to an AC load (13).

As to claim 11, since the electric power inverter and electric power supplier are connected in parallel at their outputs, the third type of dc power will be supplied to the controller when the system starts to operate, and the second type of dc power will be supplied to the controller after it has been outputted from the inverter.

As to claim 13, in the system of Nomura in view of Tanaka, the higher of the outputted voltages of the electric power inverter (second type) and the electric power supplier (third type) will be supplied to the controller (46).

As to claims 17 and 19. Nomura discloses a first protector (3), wherein the first type of dc power is supplied to the electric power inverter (21,58) and supplier (59,32,69) through the first protector (3) (see column 2, lines 51-55 and Figure 1).

As to claim 21, the electric power inverter (21,58) comprises a second protector (21) for protecting, according to the control from the controller (46), the inverter (21,58) internally against the first type of dc power.

Response to Arguments

5. Applicant's arguments, see Remarks, filed December 26, 2007, with respect to the rejection(s) of claim(s) 9-22 under 35 U.S.C. 102(b) and 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of Nomura and Tanaka.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hal I. Kaplan whose telephone number is 571-272-8587. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Sherry/
Supervisory Patent Examiner, Art Unit 2836

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